

Appendix A

Applicable or Relevant and Appropriate Requirements

Table A-1. Compliance with regulatory requirements for the PM-2A Tanks Phase 1 remedial action.

Citation	Type	Regulatory Requirements	Implementation Strategy
IDAPA 58.01.01.161. Toxic Substances Air Discharges	Chemical- Specific	Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation.	The design incorporates precautions to minimize or eliminate the potential for release of toxic contaminants to the environment. Such controls include sealing of the tanks and dust suppression activities during excavation.
NESHAPS 40 CFR 61.92 and 61.93, and 61.94 Air Discharges (Radionuclide)	Chemical- Specific	NESHAPS 40 CFR 61.92 Emissions of radionuclides to the ambient air from DOE facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/year. Establishes standards and requirements for operations of the DOE and DOE contractors with respect to protection of members of the public and the environment against undue risk from radiation. Includes narrative and numerical standards (air and water) for management of radioactive liquid effluent and radiation protection of the public. In addition, the Order provides radiological protection requirements and guidelines for cleanup of residual radioactive material and management of the resulting wastes and residues, and release of property.	No significant emissions from Phase 1 remedial actions are anticipated based on the APAD. Emissions (primarily fugitive dust) from Phase 1 remedial action will be modeled as allowed under the provisions of 40 CFR 61.93. The results will be provided to Idaho Completion Project Technical and Regulatory Integration personnel for inclusion in the annual INEEL National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Report.
Fugitive Dust IDAPA 58.01.01.650 and .651	Action	All reasonable precautions will be taken to prevent the generation of fugitive dust. IDAPA 58.01.01.651 identifies examples of reasonable precautions for preventing fugitive dust.	During Phase 1 remedial actions, all reasonable precautions will be taken to minimize fugitive dust through application of engineering controls including, but not limited to: - Use of water sprays and dust suppressants - Halting construction activities during periods of high winds. - Covering soil stockpiles - Applying fixatives

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Hazardous Waste Determination IDAPA 58.01.05.006 {40 CFR 262.11}	Action	A person who generates a solid waste must determine if the waste is a hazardous waste by using the following method: 1. Determine if the waste is excluded under (40 CFR 261.4) 2. Determine if the waste is listed as a hazardous waste in 40 CFR 261, Subpart D 3. For the purposes of compliance with 40 CFR part 268, or if the waste is not listed in subpart D of 40 CFR part 261, the generator must then determine whether the waste is identified in subpart C (characteristic) of 40 CFR part 261.	Any waste streams generated during the remediation process for storage and/or disposal will undergo a hazardous waste determination. If additional characterization information is needed for disposal, such sampling will be conducted under a Waste Generator Services (WGS) Abbreviated Sampling and Analysis Plan (ASAP). All generated waste will be packaged, handled, stored, and otherwise managed in accordance with the Waste Management Plan.
Manifest IDAPA 58.01.05.006 (40 CFR 262 Subpart B)	Action	Establishes requirements for transporting hazardous waste to treatment and/or disposal site. 262.20 General requirements (a) A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a Manifest OMB control number 2050-0039 on EPA form 8700-22, and, if necessary, EPA form 8700-22A, according to the instructions included in the appendix to part 262.	An ICDF waste tracking form will be used as a manifest for all waste shipments to ICDF. All off-INEEL hazardous waste shipments will be accompanied by a uniform hazardous waste manifest.
Pre-Transportation Requirements IDAPA 58.01.05.006 (40 CFR 262.30-262.33)	Action	262.30 Packaging: Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 173, 178, and 179. 262.31 Labeling: Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172. 262.32 Marking: (a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172; (b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304: HAZARDOUS WASTE -- Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency: Generator's Name and Address -- -- -- -- Manifest Document Number -- -- -- --	For shipment of waste to the ICDF, all packaging, labeling, marking, and placarding requirements will be met in accordance with the ICDF WAC, which incorporates these requirements. Off-Site waste transfers will be coordinated with INEEL WGS and packaging and transport (P&T). All pre-transportation requirements will be met per WGS and P&T procedures.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		262.33 Placarding: Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172, subpart F.	
General Waste Analysis IDAPA 58.01.05.008 (40 CFR 264.13)	Action	General facility standards require that operators of a facility must obtain chemical and physical analyses of a representative sample of each hazardous waste to be treated, stored, or disposed of at the facility prior to treatment, storage, or disposal. The analysis may include existing published or documented data on the hazardous waste or on hazardous waste generated from a similar process. At a minimum, the analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with this part and part 268 of this chapter.	Waste stream management requirements are based on a waste evaluation supported by a project sampling and analysis plan and/or process knowledge. This information will provide the basis for determining: container requirements, storage requirements, labeling requirements, and treatment and disposal requirements. All waste (both radioactive and hazardous) generated during remediation operations will be managed through INEEL procedures in accordance with the WMP. Analysis requirements apply to soils excavated for disposal and secondary waste generated during remediation.
Security of Site IDAPA 58.01.05.008 (40 CFR 264.14)	Action	A sign stating "Danger—Unauthorized Personnel Keep Out" must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The words must be written in English, and must be legible from a distance of at least 25 feet.	Measures will be taken to restrict access to the site during tank removal, transport, and placement. These measures will be implemented by posting signs and by installation of temporary fences and/or barricades. Existing signs with information other than "Danger—Unauthorized Personnel Keep Out" may be used if the words on the sign indicate that only authorized personnel are allowed to enter the site, and that entry onto the site can be dangerous.
General Inspections IDAPA 58.01.05.008 (40 CFR 264.15)	Action	(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to--(1) release of hazardous waste constituents to the environment or (2) a threat to human health. (b)(1) The owner or operator must develop and follow a	Once placed in the TAN-607A High Bay general inspections will be conducted on a weekly basis. A logbook of inspections and corrective

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		<p>written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.</p> <p>(2) He must keep this schedule at the facility.</p> <p>(3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).</p> <p>(4) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use.</p> <p>(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.</p>	actions will be maintained during the course of the project.
Personnel Training IDAPA 58.01.05.008 (40 CFR 264.16)	Action	<p>(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d) (3) of this section.</p> <p>(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.</p>	All personnel involved in Phase 1 remedial actions will be trained such that compliance is ensured. Training requirements for Phase 1 are listed in the HASP. Facility personnel conducting RCRA inspections of the storage tanks once placed in TAN-607A will also be trained such that compliance is ensured. Personnel training requirements and certifications are maintained in the INEEL Training Database.
Preparedness and Prevention IDAPA 58.01.05.008 40 CFR 264 Subpart C	Action	<p>264.30 Applicability: The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise.</p> <p>264.31 Design and operation of facility</p>	Emergency equipment (e.g., fire extinguishers, communications systems) will be identified, tested, and maintained. Arrangements with local authorities are addressed in the INEEL and TAN RCRA contingency plans.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Contingency Plan and Emergency Procedures IDAPA 58.01.05.008 (40 CFR 264 Subpart D)	Action	<p>264.50 Applicability: The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise.</p> <p>264.51 Purpose and implementation of contingency plan</p> <p>(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.</p> <p>(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.</p> <p>264.52 Content of contingency plan</p> <p>(a) The contingency plan must describe the actions facility personnel must take to comply with §§264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.</p> <p>(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part.</p> <p>(c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to §264.37.</p> <p>(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §264.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Regional Administrator at the time of certification, rather than at the time of permit application.</p> <p>(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.</p> <p>(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).</p>	Contingency Plan requirements are addressed in the INEEL/TAN RCRA contingency plans.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Decontamination IDAPA 58.01.05.008 (40 CFR 264.114)	Action	Disposal or decontamination of equipment, structures and soils. During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in §§264.197, 264.228, 264.258, 264.280 or §264.310. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of part 262 of this chapter.	Equipment decontamination will be conducted in accordance with the project Decontamination Plan.
Use and Management of Containers IDAPA 58.01.05.008 40 CFR 264.171-177	Action	<p>1) Remediation wastes will be kept in containers meeting the requirements of 40 CFR 264.171;</p> <p>2) Wastes will be stored with compatible containers;</p> <p>3) Containers will be properly managed; and</p> <p>4) The storage facility will be subject to inspections under 40 CFR 264.174.</p> <p>5) The storage area containment system will be in accordance with 40 CFR 264.175.</p> <p>IDAPA 58.01.05.008 {40 CFR 264 Subpart I}</p>	<p>All containers will be selected to ensure that waste is compatible with the container and that container integrity is maintained. ICDF-approved containers will be used for all soils and wastes disposed of. Weekly inspections of the containers stored in the CERCLA storage area will be conducted. Secondary containment for all containers with free liquids will be provided.</p> <p>Waste containers will be properly labeled and managed in accordance with existing procedures. Containerized waste stored in CERCLA waste storage will be subject to RCRA storage facility inspection requirements.</p> <p>HWMA/RCRA storage requirements ARARs are addressed in the WMP.</p>
Tank Closure and Post Closure Care IDAPA 58.01.05.008 40 CFR 264.197(a)	Action	<p>Closure and post-closure care</p> <p>(a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless §261.3(d) of this chapter applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in subparts G and H of this part.</p>	Phase 1 remedial actions are being coordinated with HWMA/RCRA closure requirements contained in the closure plan submitted to IDEQ. Applicable closure requirements for the TAN-607A High Bay will be addressed in Addendum 2.
Miscellaneous Units (only if treatment is required to meet LDRs) IDAPA 58.01.05.008 40 CFR 264 Subpart X (except 264.603)	Action	264.600 Applicability The requirements in this subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as §264.1 provide otherwise.	No on-Site waste treatment is planned for Phase 1 remedial actions.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Staging Piles IDAPA 58.01.05.008 (40 CFR 264.554)	Action	<p>This section is written in a special format to make it easier to understand the regulatory requirements. Like other Environmental Protection Agency (EPA) regulations, this establishes enforceable legal requirements. For this “I” and “you” refer to the owner/operator.</p> <p>(a) What is a staging pile? A staging pile is an accumulation of solid, non-flowing remediation waste (as defined in Sec. 260.10 of this chapter) that is not a containment building and is used only during remedial operations for temporary storage at a facility. A staging pile must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. Staging piles must be designated by the Director according to the requirements in this section.</p> <p>(b) When may I use a staging pile? You may use a staging pile to store hazardous remediation waste (or remediation waste otherwise subject to land disposal restrictions) only if you follow the standards and design criteria the Director has designated for that staging pile. The Director must designate the staging pile in a permit or, at an interim status facility, in a closure plan or order (consistent with Sec. 270.72(a)(5) and (b)(5) of this chapter). The Director must establish conditions in the permit, closure plan, or order that comply with paragraphs (d) through (k) of this section.</p> <p>(d) What performance criteria must a staging pile satisfy? The Director must establish the standards and design criteria for the staging pile in the permit, closure plan, or order.</p> <p>(1) The standards and design criteria must comply with the following:</p> <p>(i) The staging pile must facilitate a reliable, effective and protective remedy;</p> <p>(ii) The staging pile must be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment (for example, through the use of liners, covers, run-off/run-on controls, as appropriate); and</p> <p>(iii) The staging pile must not operate for more than two years, except when the Director grants an operating term extension under paragraph (i) of this section (entitled “May I receive an operating extension for a staging pile?”). You must measure the two-year limit, or other operating term specified by the Director in the permit, closure plan, or order, from the first time you place remediation waste into a staging pile. You must maintain a record of the date when you first placed remediation waste into the staging pile for the life of the permit, closure plan, or order, or for three years, whichever is longer.</p> <p>(g) Are staging piles subject to Land Disposal Restrictions (LDR) and Minimum Technological Requirements (MTR)? No. Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the minimum technological requirements of RCRA 3004(o).</p> <p>(m) Is information about the staging pile available to the public? The Director must document the rationale for designating a staging pile or staging pile operating term extension and make this</p>	Staging piles will be managed, as specified in the Waste Management Plan, in accordance with the requirements.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		documentation available to the public.	
LDR Treatment Standards IDAPA 58.01.05.008 IDAPA 58.01.05.011 40 CFR 268.40 (a)(b)(e)	Action	<p>IDAPA Regulation 58.01.05.011 identifies that all of 40 CFR Part 268 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 1994, except for 40 CFR Parts 268.5, 268.6, 268.42(b) and 268.44. Except as specifically provided otherwise in this part or part 261 of this chapter, the requirements of this part apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities. Restricted wastes may continue to be land disposed as follows:</p> <ol style="list-style-type: none"> 1) Where persons have been granted an extension to the effective date of a prohibition under subpart C of this part or pursuant to Section 268.5, with respect to those wastes covered by the extension; 2) Where persons have been granted an exemption from a prohibition pursuant to a petition under Section 268.6, with respect to those wastes and units covered by the petition; 3) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited from land disposal under this part, are not prohibited from land disposal if the wastes: <ol style="list-style-type: none"> a) Are disposed into a nonhazardous or hazardous injection well as defined in 40 CFR 144.6(a); and b) Do not exhibit any prohibited characteristic of hazardous waste at the point of injection; and c) If at the point of generation the injected wastes include D001 High TOC subcategory wastes or D012-D017 pesticide wastes that are prohibited under Section 148.17(c) of this chapter, those wastes have been treated to meet the treatment standards of Section 268.40 before injection. 	Wastes generated as a result of remediation efforts will be fully characterized based on sampling or process knowledge. Each waste stream will be evaluated to determine the applicability of LDRs. Waste streams subject to LDRs will be segregated and managed separately from waste streams not subject to LDRs.
Treatment Standards for Hazardous Debris IDAPA 58.01.05.011 (40 CFR 268.45 (a)(b)(c)(d))	Action	<p>§268.45 Treatment standards for hazardous debris</p> <p>(a) Treatment standards. Hazardous debris must be treated prior to land disposal as follows unless EPA determines under §261.3(f)(2) of this chapter that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this subpart for the waste contaminating the debris:</p> <ol style="list-style-type: none"> (1) General. Hazardous debris must be treated for each “contaminant subject to treatment” defined by paragraph (b) of this section using the technology or technologies identified in Table 1 of this section. (2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under §§261.21, 261.22, and 261.23 of this chapter, respectively, must be deactivated by treatment using one of the technologies identified in Table 1 of this section. (3) Mixtures of debris types. The treatment standards of Table 1 in this section must be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used. (4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under paragraph (b) of this section must be treated for each contaminant using one or more treatment technologies identified in Table 1 of 	These alternative treatment standards will be considered for all debris items generated and will be managed in accordance with the WMP.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		<p>this section. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.</p> <p>(5) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the requirements of this section, whichever are more stringent.</p> <p>(b) Contaminants subject to treatment. Hazardous debris must be treated for each “contaminant subject to treatment.” The contaminants subject to treatment must be determined as follows:</p> <p>(1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by §261.24 of this chapter are those EP constituents for which the debris exhibits the TC toxicity characteristic.</p> <p>(2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under §268.40.</p> <p>(3) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.</p> <p>(c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under subpart C, part 261, of this chapter after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and must be managed in a subtitle C facility.</p> <p>(d) Treatment residuals –</p> <p>(1) General requirements. Except as provided by paragraphs (d)(2) and (d)(4) of this section:</p> <p>(i) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and</p> <p>(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by subpart D of this part for the waste contaminating the debris.</p> <p>(2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by paragraph (b) of this section, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of subpart D of this part.</p> <p>(3) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003 in “Treatment Standards for Hazardous Wastes” at §268.40.</p>	

Table A-1. (continued).

Citation	Type	Regulatory Requirements				Implementation Strategy																				
		<p>(4) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D00: Ignitable Liquids.</p> <p>(5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.</p>																								
Universal Treatment Standards IDAPA 58.01.05.011 40 CFR 268.48(a)	Action	§268.48 Universal treatment standards <p>(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in §268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.</p>				Wastes generated as a result of remediation efforts will be fully characterized, including underlying hazardous constituents, based on sampling or process knowledge. No onsite treatment is anticipated.																				
Alternative Treatment Standards for Contaminated Soil IDAPA 58.01.05.011 40 CFR 268.49	Action	<p>§268.49 Alternative LDR treatment standards for contaminated soil</p> <p>Applicability. You must comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:</p> <table><tr><th>If LDRs</th><th>And if LDRs</th><th>And if</th><th>Then you</th></tr><tr><td>Applied to the listed waste when it contaminated the soil*</td><td>Apply to the listed waste now.</td><td></td><td>Must comply with LDRs</td></tr><tr><td>Didn't apply to the listed waste when it contaminated the soil*</td><td>Apply to the listed waste now.</td><td>The soil is determined to contain the listed waste when the soil is first generated.</td><td>Must comply with LDRs</td></tr><tr><td>Didn't apply to the listed waste when it contaminated the soil*</td><td>Apply to the listed waste now.</td><td>The soil is determined not to contain the listed waste when the soil is first generated.</td><td>Need not comply with LDRs</td></tr><tr><td>Didn't apply to the listed waste when it contaminated the soil*</td><td>Don't apply to the listed waste now.</td><td></td><td>Need not comply with LDRs</td></tr></table>				If LDRs	And if LDRs	And if	Then you	Applied to the listed waste when it contaminated the soil*	Apply to the listed waste now.		Must comply with LDRs	Didn't apply to the listed waste when it contaminated the soil*	Apply to the listed waste now.	The soil is determined to contain the listed waste when the soil is first generated.	Must comply with LDRs	Didn't apply to the listed waste when it contaminated the soil*	Apply to the listed waste now.	The soil is determined not to contain the listed waste when the soil is first generated.	Need not comply with LDRs	Didn't apply to the listed waste when it contaminated the soil*	Don't apply to the listed waste now.		Need not comply with LDRs	These alternative treatment standards will be considered for all contaminated soils managed in accordance with the WMP.
If LDRs	And if LDRs	And if	Then you																							
Applied to the listed waste when it contaminated the soil*	Apply to the listed waste now.		Must comply with LDRs																							
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Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		*For dates of LDR applicability, see 40 CFR Part 268 Appendix VII. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.	
CERCLA Off-Site Policy 40 CFR 300.440	Action	§300.440 Procedures for planning and implementing off-site response actions (a) Applicability. (1) This section applies to any remedial or removal action involving the off-site transfer of any hazardous substance, pollutant, or contaminant as defined under CERCLA sections 101 (14) and (33) ("CERCLA waste") that is conducted by EPA, States, private parties, or other Federal agencies, that is Fund-financed and/or is taken pursuant to any CERCLA authority, including cleanups at Federal facilities under section 120 of CERCLA, and cleanups under section 311 of the Clean Water Act (except for cleanup of petroleum exempt under CERCLA). Applicability extends to those actions taken jointly under CERCLA and another authority.	Non-INEEL facilities that may be used for the treatment, storage, and disposal of this waste must be found suitable to receive waste from CERCLA remediation sites by that facility's applicable EPA Regional Office.
To Be Considered			
Radiation Protection of the Public and the Environment DOE Order 5400.5, Chapter II (1)(a)(b)		Order that limits the effective dose to the public from exposure to radiation sources and airborne releases.	Requirements are defined by compliance with the INEEL Radiological Control Manual. These requirements will be met by administrative and engineering controls during Phase 1 remedial actions.
Institutional Controls Region 10 Final Policy on the Use of Institutional Controls at Federal Facilities.		Applies to contamination left in place or remaining above E-4 risk.	Existing ICs will continue following the early remedial action. The IC requirements are specified in the <i>Institutional Control Plan for the Test Area North Waste Area Group 1</i> (INEEL 2000). This plan documents current and future activities for implementing ICs in accordance with the OU 1-10 ROD, and was designed to meet the Region 10 final policy.
Additional ARARS Based on Revised Remediation Approach			
Tank Systems 40 CFR 264 Subpart J Sections 192-196		§264.192 Design and installation of new tank systems or components.	The PM-2A tank system is inactive and contains residual waste for which treatment if necessary and disposal is planned. The tank system will be placed in CERCLA storage until such time as the waste residuals and tanks may be appropriately disposed.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		<p>§264.193 Containment and detection of releases</p> <p>(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section must be provided (except as provided in paragraphs (f) and (g) of this section):</p> <p>(1) For all new tank systems or components, prior to their being put into service;</p> <p>(2) For all existing tank systems used to store or treat EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027, within two years after January 12, 1987;</p> <p>(3) For those existing tank systems of known and documented age, within two years after January 12, 1987 or when the tank system has reached 15 years of age, whichever comes later;</p> <p>(4) For those existing tank systems for which the age cannot be documented, within eight years of January 12, 1987; but if the age of the facility is greater than seven years, secondary containment must be provided by the time the facility reaches 15 years of age, or within two years of January 12, 1987, whichever comes later; and</p> <p>(5) For tank systems that store or treat materials that become hazardous wastes subsequent to January 12, 1987, within the time intervals required in paragraphs (a)(1) through (a)(4) of this section, except that the date that a material becomes a hazardous waste must be used in place of January 12, 1987.</p> <p>(b) Secondary containment systems must be:</p> <p>(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and</p> <p>(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.</p> <p>(c) To meet the requirements of paragraph (b) of this section, secondary containment systems must be at a minimum:</p> <p>(1) Constructed of or lined with materials that are compatible with the wastes(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic).</p> <p>(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;</p>	<p>Waste residuals will be maintained within the tanks until such time as Phase 2 may be completed. The remedial design includes provisions for evaluating the structural integrity of the tanks prior to lifting, transport, and placement in the TAN-607A high bay.</p> <p>Secondary containment, consisting of a polypropylene liner supported by concrete shield walls, will be provided in the TAN-607A high bay during storage of the tanks. The requirement to contain 100% of the capacity of the largest tank will not be met, nor is it applicable, as it pertains to active tanks that may be filled to capacity with hazardous waste. The designed secondary containment system will provide for roughly 200% of the waste inventory contained in both tanks. No additional waste will be placed in the tanks, ensuring adequate secondary containment capacity for all waste to be stored in the CERCLA storage area. The capacity and compatibility of the liner system will be reevaluated prior to commencement of Phase 2 remedial actions. Structural stability of the liner system is ensured by the concrete shielding walls and the concrete floor of the high bay. Leak detection will be accomplished through the use of video cameras. Equipment will be staged to ensure the timely removal of any waste that may spill to the secondary containment.</p>

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		<p>(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the owner or operator can demonstrate to the Regional Administrator that existing detection technologies or site conditions will not allow detection of a release within 24 hours; and</p> <p>(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.</p> <p>Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the Regional Administrator that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.</p> <p>[Note: If the collected material is a hazardous waste under part 261 of this chapter, it is subject to management as a hazardous waste in accordance with all applicable requirements of parts 262 through 265 of this chapter. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.]</p> <p>(d) Secondary containment for tanks must include one or more of the following devices:</p> <ol style="list-style-type: none"> (1) A liner (external to the tank); (2) A vault; (3) A double-walled tank; or (4) An equivalent device as approved by the Regional Administrator <p>(e) In addition to the requirements of paragraphs (b), (c), and (d) of this section, secondary containment systems must satisfy the following requirements:</p> <ol style="list-style-type: none"> (1) External liner systems must be: <ol style="list-style-type: none"> (i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary; (ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event. (iii) Free of cracks or gaps; and (iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste). (2) Vault systems must be: <ol style="list-style-type: none"> (i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary; 	

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		<p>(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event:</p> <p>(iii) Constructed with chemical-resistant water stops in place at all joints (if any):</p> <p>(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;</p> <p>(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:</p> <p>(A) Meets the definition of ignitable waste under Sec. 262.21 of this chapter; or</p> <p>(B) Meets the definition of reactive waste under Sec. 262.21 of this chapter, and may form an ignitable or explosive vapor.</p> <p>(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.</p> <p>§264.194 General Operating Requirements</p> <p>(a) Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.</p> <p>(b) The owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:</p> <p>(1) Spill prevention controls (e.g., check valves, dry disconnect couplings);</p> <p>(2) Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and</p> <p>(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.</p> <p>(c) The owner or operator must comply with the requirements of Sec. 264.196 if a leak or spill occurs in the tank system.</p> <p>§264.195 Inspections</p> <p>(a) The owner or operator must develop and follow a schedule and procedure for inspecting overfill controls.</p> <p>(b) The owner or operator must inspect at least once each operating day:</p> <p>(1) Aboveground portions of the tank system, if any, to detect corrosion or releases of waste;</p> <p>(2) Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and</p> <p>(3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).</p>	<p>The PM-2A tanks will be placed in interim CERCLA storage in the TAN-607A high bay. No operations beyond storage will be completed under Phase 1. Operating requirements will be addressed as necessary during Phase 2.</p> <p>A remote video camera system will be installed in the TAN-607A CERCLA storage area to facilitate inspections of the tanks in accordance with this requirement.</p> <p>As the PM-2A tanks have been disconnected from all inflow and outflow connections and there is minimal free liquid present, weekly inspections of the CERCLA storage will be conducted.</p>

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		<p>[Note: Section 264.15(c) requires the owner or operator to remedy any deterioration or malfunction he finds. Section 264.196 requires the owner or operator to notify the Regional Administrator within 24 hours of confirming a leak. Also, 40 CFR part 302 may require the owner or operator to notify the National Response Center of a release.]</p> <p>(c) The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:</p> <p>(1) The proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter; and</p> <p>(2) All sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).</p> <p>[Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)--Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.]</p> <p>(d) The owner or operator must document in the operating record of the facility an inspection of those items in paragraphs (a) through (c) of this section.</p> <p>§264.196 Response to leaks or spills and disposition of leaking or un-fit-for-use tank systems</p> <p>A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements:</p> <p>(a) Cessation of use; prevent flow or addition of wastes. The owner or operator must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.</p> <p>(b) Removal of waste from tank system or secondary containment system. (1) If the release was from the tank system, the owner/operator must, within 24 hours after detection of the leak or, if the owner/operator demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.</p> <p>(2) If the material released was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.</p> <p>(c) Containment of visible releases to the environment. The owner/operator must immediately conduct a visual inspection of the release and, based upon that inspection:</p> <p>(1) Prevent further migration of the leak or spill to soils or surface water; and</p> <p>(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.</p> <p>(d) Notifications, reports. (1) Any release to the environment, except as provided in paragraph (d)(2) of this</p>	<p>The PM-2A tanks will be placed in interim CERCLA storage in the TAN-607A high bay. The tanks will be monitored via remote video inspection to assure any release from the tanks is detected in a timely manner. The tanks are inactive and will not be used to manage any waste other than those residuals currently contained within the tanks. Any release from the tanks to the secondary containment will be removed in accordance with this requirement. Response actions, including implementation of measures to prevent further release of hazardous waste (e.g., plugging) will be initiated within 24 hours, or at the earliest time practical. Upon detection of a release to the secondary containment system, an inspection will be conducted to determine if there has been a release to the environment. Appropriate response actions, including appropriate notifications, will be taken based on the results of this inspection.</p>

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		<p>section, must be reported to the Regional Administrator within 24 hours of its detection. If the release has been reported pursuant to 40 CFR part 302, that report will satisfy this requirement.</p> <p>(2) A leak or spill of hazardous waste is exempted from the requirements of this paragraph if it is:</p> <ul style="list-style-type: none"> (i) Less than or equal to a quantity of one (1) pound, and (ii) Immediately contained and cleaned up. <p>(3) Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Regional Administrator:</p> <ul style="list-style-type: none"> (i) Likely route of migration of the release; (ii) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate); (iii) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Regional Administrator as soon as they become available. (iv) Proximity to downgradient drinking water, surface water, and populated areas; and (v) Description of response actions taken or planned. <p>(e) Provision of secondary containment, repair, or closure.</p> <p>(1) Unless the owner/operator satisfies the requirements of paragraphs (e)(2) through (4) of this section, the tank system must be closed in accordance with Sec. 264.197.</p> <p>(2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.</p> <p>(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.</p> <p>(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of Sec. 264.193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of paragraph (f) of this section are satisfied. If a component is replaced to comply with the requirements of this subparagraph, that component must satisfy the requirements for new tank systems or components in Secs. 264.192 and 264.193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with Sec. 264.193 prior to being returned to use.</p> <p>(f) Certification of major repairs. If the owner/operator has repaired a tank system in accordance with paragraph (e) of this section, and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank</p>	

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		system must not be returned to service unless the owner/operator has obtained a certification by an independent, qualified, registered, professional engineer in accordance with Sec. 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be submitted to the Regional Administrator within seven days after returning the tank system to use.	

Appendix B

Air Permitting Applicability Determination

AIR PERMITTING APPLICABILITY DETERMINATION

Note: This completed form serves as official transmittal and documentation of the Environmental Affairs (EA) Air Permitting Applicability Determination (APAD) and is approved based on the information and project description supplied by a Project Manager or Designee. This form is the official means of documenting APAD review, and specifies project specific permitting actions required and/or operating conditions for the emission of air pollutants, or 40 CFR 68 requirements for storage of regulated chemicals. Unless operation or construction is initiated within one year (or as otherwise noted in the APAD), the APAD is valid for one year from the Issuance Date. If project operation or construction is not initiated within one year of the Issuance Date, or the Project Manager or Designee fails to provide project status or a revision request to EA, the APAD will be rescinded. Project status is made using INEEL Form 450.31. The calculations used herein are performed in accordance with approved environmental protocols, and therefore may not suffice for use in health, safety, or radiological control evaluations.

Section A. Document Concurrence

Instructions: The APAD Document Preparer shall sign the appropriate block and obtain the signature of the APAD Technical Reviewer and the Project Manager. Additional signatures may be obtained at the request of cognizant EA, facility, or project personnel.

Project Title: TSF-26 PM-2A CERCLA Tank Treatment Project

APAD Issuance Date: 04/15/04 (Revision 1)

NEPA Document or Project Number: NA

APAD Tracking Number: 04-13

APAD Document Preparer:

I have prepared this document in accordance with applicable requirements and regulatory agency guidance, and I verify it is true, accurate, and complete to the best of my knowledge.

C.A. Reno
Print/Type Name

Catherine A. Reno
Signature

4/15/04
Date

APAD Technical Reviewer (Must complete APAD Appendix B Checklist):

I have reviewed this document for technical accuracy and content, including the validation of calculations where applicable, and concur that it is true, accurate, and complete to the best of my knowledge.

H.R. Orr
Print/Type Name

C.A. Reno for H.R. Orr
Signature

4/19/04
Date

Project Manager (Must complete APAD Appendix C Checklist):

I concur that based on my inquiry of the person(s) who prepared this document, and/or the person(s) directly responsible for gathering or providing the information, the document is true, accurate, and complete to the best of my knowledge.

M.D. Elliot
Print/Type Name

M.D. Elliot
Signature

4/19/04
Date

Engineering

I concur that based on my inquiry of the person(s) who prepared this document, and/or the person(s) directly responsible for gathering or providing the information, the document is true, accurate, and complete to the best of my knowledge.

D. R. Tyson
Print/Type Name

Dail Tyson
Signature

4/20/04
Date

Title:

I concur that based on my inquiry of the person(s) who prepared this document, and/or the person(s) directly responsible for gathering or providing the information, the document is true, accurate, and complete to the best of my knowledge.

Print/Type Name

Signature

Date

Title:

I concur that based on my inquiry of the person(s) who prepared this document, and/or the person(s) directly responsible for gathering or providing the information, the document is true, accurate, and complete to the best of my knowledge.

Print/Type Name

Signature

Date

Title:

I concur that based on my inquiry of the person(s) who prepared this document, and/or the person(s) directly responsible for gathering or providing the information, the document is true, accurate, and complete to the best of my knowledge.

Print/Type Name

Signature

Date

AIR PERMITTING APPLICABILITY DETERMINATION

Section B. Common APAD Acronyms

AEI	Air Emissions Inventory	APAD	Air Permitting Applicability Determination
ARAR	Applicable or Relevant and Appropriate Requirements	BRC	Below Regulatory Concern
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	EA	Environmental Affairs
EC	Environmental Checklist	EPA	United States Environmental Protection Agency
IDAPA	Idaho Administrative Procedures Act	IDEQ	Idaho Department of Environmental Quality
NEPA	National Environmental Policy Act	NESHAP	National Emissions Standard for Hazardous Air Pollutants
PSD	Prevention of Significant Deterioration	PTC	Permit To Construct
RMP	Risk Management Plan	TAP	Toxic Air Pollutant
WAG	Waste Area Group		

Section C. Air Permitting Applicability Determination

Instructions: Indicate determination by checking the appropriate box. The appropriate "No Permitting Required" box must be checked for any "Category I" or "Category II Exemption." A Below Regulatory Concern (BRC), Level 1, 2, or 3 determination must also be checked for any Category I or II Exemption for which Toxic Air Pollutants (TAPs) are documented.

- | | |
|--|---|
| <input type="checkbox"/> Permit to Construct (PTC) Required from Regulatory Agency | <input type="checkbox"/> PTC Modification Required from Regulatory Agency |
| <input type="checkbox"/> Category I Exemption:
TAPs: <input type="checkbox"/> BRC; <input type="checkbox"/> Level 1; <input type="checkbox"/> Level 2; <input type="checkbox"/> Level 3 | <input type="checkbox"/> Category II Exemption:
TAPs: <input type="checkbox"/> BRC; <input type="checkbox"/> Level 1; <input type="checkbox"/> Level 2; <input type="checkbox"/> Level 3 |
| <input type="checkbox"/> Risk Management Plan Required | <input type="checkbox"/> NESHAP Approval to Construct Required |
| <input type="checkbox"/> Further Evaluation for Permitting Required | <input type="checkbox"/> No Permitting Required, Without Conditions |
| <input type="checkbox"/> No Permitting Required, With Conditions (See Sections E, F, & G) | |
| <input checked="" type="checkbox"/> No Permitting Required, CERCLA Action with Conditions (Must Meet ARARs, See Sections E, F, & G) | |

Section D. Brief Description of Air Pollutant Emitting Aspects of Proposed Activity

Instructions: Include in this section a brief description that summarizes the scope of the project, the facility affected, whether the facility currently has emissions, and a summary of emission impacts caused by the proposed project. Information such as a paraphrased summary of the project description in an Environmental Checklist (EC), location, vents, and horsepower ratings for engines, should be included. Documents (including relevant letters, relevant e-mails, written records of personal communications, etc.) upon which this description is based must be included in the APAD information file. Date and identify the source of information for all material placed in this APAD and the APAD information file.

The proposed method of treatment for the Technical Support Facility (TSF)-26 PM-2A tanks located at the Idaho National Engineering and Environmental Laboratory (INEEL) Test Area North (TAN) has not yet been specified but is likely to be chemical oxidation or thermal desorption. The activity supports a CERCLA remedial action at the INEEL for the TAN Operable Unit (OU) 1-10. The approximate 10,400 gallons of waste from these tanks will likely be treated at either the TAN 607 high bay which exhausts to the existing TAN-734 stack, or will be treated in a location which exhausts to a new stack at TAN. This APAD also addresses the potential venting of emissions at the tank site location, external to a specified exhaust point.

This evaluation is not dependent on the type of treatment technology chosen, so long as the assumptions used for the emission calculations remain valid. Depending on whether further sampling and characterization of the PM-2A tanks is necessary, future analytical results may show higher (or lower) concentrations of waste constituents. If the concentrations are higher than those used in this evaluation, additional calculations should be performed to determine that the applicable limits will not be exceeded.

Section E. Impacts and Summary of Applicable Regulations

Instructions: Based upon review of applicable project information, regulations, agency guidance, and EA regulatory clarification documents, check all boxes for which the project may incur regulatory impact or requirement.

- | | |
|--|---|
| <input checked="" type="checkbox"/> Change in Stack Parameters | <input checked="" type="checkbox"/> CERCLA Remedial Action |
| <input type="checkbox"/> Excess Emissions Reporting | <input type="checkbox"/> Demolition Notification |
| <input type="checkbox"/> Fuel Sulfur Content | <input type="checkbox"/> Fuel Burning Equipment Particulate Matter |
| <input type="checkbox"/> Fugitive Dust Control | <input type="checkbox"/> NESHAP Asbestos Notification |
| <input type="checkbox"/> Air Emissions Inventory | <input type="checkbox"/> NESHAP Continuously Monitored Radionuclide |
| <input checked="" type="checkbox"/> NESHAP Radionuclide Actual Emissions | <input type="checkbox"/> Title V Operating Permit |
| <input checked="" type="checkbox"/> NESHAP Unabated Radionuclide Emissions | <input type="checkbox"/> Notification of Emissions Change |

AIR PERMITTING APPLICABILITY DETERMINATION

- | | |
|--|--|
| <input type="checkbox"/> Open Burning | <input type="checkbox"/> Particulate Matter Process Weight Limitations |
| <input type="checkbox"/> Portable Equipment Registration | <input type="checkbox"/> Subcontractor Internal Combustion Engine(s) |
| <input type="checkbox"/> Subcontractor Permitting/Registration | <input checked="" type="checkbox"/> Visible Emissions |
| <input type="checkbox"/> Risk Management Plan | <input type="checkbox"/> None |

Section F. Summary of Requirements of Operations

Instructions: For each impact checked in Section E, cite the regulation and summarize the applicable requirements.

Change in Stack Parameters - The performing organization Project Manager shall notify Environmental Compliance in a timely manner of any proposed change and/or removal of this air emissions source.

CERCLA Remedial Action - Remedial action must meet the substantive requirements of the Clean Air Act (CAA), which are considered either Applicable or Relevant and Appropriate Requirements (ARARs), and may include State of Idaho and Federal requirements. The performing organization Project Manager shall ensure that project personnel calculate emissions from this project and maintain documentation of the emissions calculations on file.

NESHAP Radionuclide Actual Emissions - All radiological emissions to the environment, including those from all point and diffuse sources, must be determined for demonstrating compliance with the NESHAP Standard [see CFR 61.93 (a)] and submitted for reporting in the INEEL NESHAP's Annual Report per 40 CFR 61.94.

NESHAP Unabated Radionuclide Emissions - The unabated radiological emissions to the environment which must be calculated for each affected stack or vent, must be calculated/measured annually per 40 CFR 61.93 (b)(4)(i) (periodic confirmatory measurement).

Visible Emissions - IDAPA 58.01.01.625 - A person shall not discharge any air pollutant into the atmosphere from any point of emission for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period which is greater than twenty percent (20%) opacity.

Section G. Facility/Project Tasks for Demonstration of Compliance to Requirements

Instructions: For each requirement presented in Section F, specify in Part II below detailed actions that Facility/Project personnel must take to adequately demonstrate compliance. This includes identifying required reports/notifications (including due dates), documenting the manner in which throughput limitations are to be met, identifying required monitoring methods and frequency, specifying record keeping frequency, and providing details on any specific tasks necessary to document actual or potential emissions. State "No Compliance Tasks" for any requirement in Section F for which Facility/Project personnel have no responsibilities.

Part I: Facility/Project task responsibilities applicable to all projects:

- A The Facility Manager or Designee shall ensure this APAD is maintained with its associated information file at an on-site location (See Appendix C for facility identified storage location)
- B The Facility Manager or Designee, using the INEEL Form 450.31, shall provide to EA Policy and Permitting, an annual notification of project status, and one-time notification within 30 days after any of the following:
 1. Construction - not applicable
 2. Startup - not applicable
 3. Completion - not applicable
 4. Cancellation
- C The Project Manager or Designee shall provide advance written notification to EA Policy and Permitting as soon as possible if the project scope changes. Notification to EA is necessary to ensure the APAD is accurate and complete for a proposed scope change.

Part II: Facility/Project task responsibilities specific to this project:

1. Change in Stack Parameters - The performing organization Project Manager shall notify Environmental Compliance in a timely manner of any proposed change and/or removal of this air emissions source. Contact the project environmental lead for additional guidance.
2. CERCLA Remedial Action - ARARs applicable to this project are compliance with IDAPA 58.01.01.220 and 40 CFR Part 61 Subpart H. Section I of this APAD (Justification for APAD) documents that the approval/exemption requirements of IDAPA 58.01.01.220 and 40 CFR Part 61 Subpart H are met. In addition to documenting that the applicable approval/exemption requirements are met, the ARARs also include the determination and reporting of actual and potential radionuclide emissions as listed in this APAD under Section G Part II 4-5. The performing organization Project Manager shall ensure this project's emissions are reported as required. Emission calculations should be maintained in the appropriate project file.
3. NESHAP Radionuclide Actual Emissions - The performing organization Project Manager shall ensure that this project's actual radionuclide emissions contribution are determined and reported to the project environmental lead.

Note: Calculations and emissions identified in this APAD may be used to satisfy all or part of the reporting requirements as advised by the project environmental lead.

4. NESHAP Unabated Radionuclide Emissions - The performing organization Project Manager shall ensure that this project's potential

AIR PERMITTING APPLICABILITY DETERMINATION

(unabated) radiological emissions are determined annually per 40 CFR 61.93(b)(4)(i) (periodic confirmatory measurement) and report the unabated results as specified in MCP-3480 to the project environmental lead.

Note: Calculations and emissions identified in this APAD may be used to satisfy all or part of the reporting requirements as advised by the project environmental lead.

5. Visible Emissions – No compliance demonstration required.
6. Potential to Emit - This APAD was based on several factors which were considered part of the physical and operational design of this emission source. The facility manager shall ensure that the corresponding emission levels are not exceeded. Emissions shall be documented in project files and compiled as appropriate to demonstrate compliance with the requirements of this APAD. For increases in emissions or change of activity, contact the project environmental lead for an air emissions evaluation prior to implementing the change.

Section H. Summary of Applicable Environmental Reports Performed by Environmental Affairs

Instructions: Based on the presence of regulated air pollutants documented in this APAD and the applicability of regulatory requirements, check the appropriate boxes below to indicate those reports and documents prepared by EA that are impacted by this APAD.

- | | |
|---|---|
| <input type="checkbox"/> Air Emissions Inventory | <input type="checkbox"/> Title V Air Operating Permit |
| <input type="checkbox"/> Annual Toxics Report | <input type="checkbox"/> NESHAP Continuous Compliance Monitoring |
| <input checked="" type="checkbox"/> NESHAP Annual Report | <input checked="" type="checkbox"/> NESHAP Periodic Confirmatory Monitoring |
| <input type="checkbox"/> PSD Quarterly Report | <input type="checkbox"/> Risk Management Plan |
| <input type="checkbox"/> Semi-Annual Continuous Compliance Report | <input type="checkbox"/> None |
-

Section I: Justification for APAD

Instructions: Cite the regulation upon which the determination is based, and document how the project meets each condition of the regulation. Background documentation, including emission calculations and modeling, which substantiates the determination, must be included in Appendix A.

This project supports a CERCLA remedial action, and as such must meet the substantive requirements of the Clean Air Act which are considered ARARs. The ARARs for this project are demonstration of compliance with the substantive requirements of Idaho Administrative Procedures Act (IDAPA) 58.01.01.220 and 40 CFR Part 61 Subpart H. The project is not required to meet administrative requirements (permitting, notifications, etc).

This evaluation was performed to document that uncontrolled emissions of criteria air pollutants will be less than the significant emission levels identified in IDAPA 58.01.01.006.93. Therefore, the project emissions are not be subject to the requirements associated with a detailed permitting/impact analysis, such as a Prevention of Significant Deterioration (PSD) review, increment consumption analysis, and installation of Best Available Control Technology (BACT). This evaluation shows that potential uncontrolled emissions of criteria air pollutants will not cause a violation of an ambient air quality standard in accordance with IDAPA 58.01.01.577.

This evaluation shows that uncontrolled emissions of non-carcinogenic toxic air pollutants and several carcinogenic toxic air pollutants are less than the screening emission levels. Emissions of all toxic air pollutants will not exceed the acceptable ambient concentrations as listed in IDAPA 58.01.01.585 and 586.

This evaluation shows that uncontrolled radionuclide emissions will not exceed the 0.1 mrem/yr trigger level as referenced in 40 CFR Part 61 Subpart H. Therefore, the continuous monitoring requirement of 40 CFR Part 61 Subpart H is not applicable to this project. As stated in Section G Part II of this APAD, compliance with the 10 mrem/yr dose standard for the INEEL site and the reporting requirements of 40 CFR Part 61 Subpart H are applicable.

For all air pollutants, this evaluation demonstrates that installation and operation of air pollution control equipment to control emissions is not required by the Clean Air Act.

AIR PERMITTING APPLICABILITY DETERMINATION

STATE REGULATIONS

IDAPA 58.01.01 RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO

IDAPA 58.01.01.161 TOXIC SUBSTANCES.

Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation.

Justification: No contaminant will be emitted in such quantities or concentrations that will injure or unreasonably affect human or animal life or vegetation. As referenced in IDAPA 58.01.01.203, the methods of IDAPA 58.01.01.210 were used to demonstrate compliance with this requirement. Potential emissions of toxic air pollutants will not exceed the acceptable ambient concentrations identified in IDAPA 58.01.01.585 and 586. Refer to Appendix A, Tables A-1 and A-2 for toxic air pollutant emission calculations and comparison to the screening emission levels and acceptable ambient concentration criteria. The criterion is satisfied.

IDAPA 58.01.01.203. PERMIT REQUIREMENTS FOR NEW AND MODIFIED STATIONARY SOURCES.

No permit to construct shall be granted for a new or modified stationary source unless the applicant shows to the satisfaction of the Department all of the following:

01. Emission Standards. The stationary source or modification would comply with all applicable local, state or federal emission standards.

Justification: The source will comply with all substantive local, state and federal emission standards. Emissions of criteria air pollutants will be less than the significant emission levels identified in IDAPA 58.01.01.006.93 and will not cause or significantly contribute to a violation of an air quality standard. Emissions of toxic air pollutants will not exceed the acceptable ambient concentrations as listed in IDAPA 58.01.01.585 and 586. Emissions of radionuclides will not exceed one (1%) of the applicable 10 mrem/yr radionuclide dose standard as referenced in 40 CFR Part 61 Subpart H. Refer to Appendix A, Tables A-1 through A-2 for evaluation of toxic air pollutant emissions. Refer to Table A-3 for evaluation of radionuclide emissions. Refer to Table A-4 for evaluation of criteria air pollutant emissions. Refer to Table A-5 for evaluation of compliance with the ambient air quality standards. The criterion is satisfied.

02. NAAQS. The stationary source or modification would not cause or significantly contribute to a violation of any ambient air quality standard.

Justification: The source will be located in an attainment or unclassifiable area; therefore, emissions could not significantly contribute to a violation where no violation of an ambient air quality standard has occurred. The projected ambient concentrations will not cause a violation of an ambient air quality standard. Refer to Appendix A, Table A-5 for ambient impact analysis. The criterion is satisfied.

03. Toxic Air Pollutants. Using the methods provided in Section 210, the emissions of toxic air pollutants from the stationary source or modification would not injure or unreasonably affect human or animal life or vegetation as required by Section 161. Compliance with all applicable toxic air pollutant carcinogenic increments and toxic air pollutant non-carcinogenic increments will also demonstrate preconstruction compliance with Section 161 with regards to the pollutants listed in Sections 585 and 586.

Justification: Using the methods provided in IDAPA 58.01.01.210, the projected emissions of toxic air pollutants will comply with IDAPA 58.01.01.585 and 586 standards. Uncontrolled emissions of non-carcinogenic toxic air pollutants and several carcinogenic toxic air pollutants from this project will be less than the applicable screening emission levels. Uncontrolled emissions of all toxic air pollutants from this project will be less than the acceptable ambient concentrations. Refer to Appendix A, Tables A-1 and A-2 for toxic air pollutant emission calculations and comparison to the screening emission levels and acceptable ambient concentration criteria. The criterion is satisfied.

IDAPA 58.01.01.220. CRITERIA FOR PERMIT TO CONSTRUCT EXEMPTIONS.

01. General Exemption Criteria. Sections 220 through 223 may be used by owners or operators to exempt certain sources from the requirement to obtain a permit to construct. Nothing in these sections shall preclude an owner or operator from choosing to obtain a permit to construct. For purposes of Sections 220 through 223, the term source means the equipment or activity being exempted. No permit to construct is required for a source that satisfies all of the following criteria, in addition to the criteria set forth at Sections 221, 222, or 223: (4-5-00)

Justification: This purpose of the evaluation of IDAPA 58.01.01.220 general exemption requirements is to show that this project does not trigger any additional requirements for the INEEL as a major stationary source.

- a. The maximum capacity of a source to emit an air pollutant under its physical and operational design without consideration of limitations on emission such as air pollution control equipment, restrictions on hours of operation and restrictions on the type and amount of material combusted, stored or processed would not: (4-5-00)
- i. Equal or exceed one hundred (100) tons per year of any regulated air pollutant. (4-5-00)

AIR PERMITTING APPLICABILITY DETERMINATION

Justification: Emissions from this air emission source will not equal or exceed one hundred (100) tons per year of any regulated air pollutant. Refer to Appendix A, Tables A-1 through A-4 for emission calculations. The criterion is satisfied.

- ii. Cause an increase in the emissions of a major facility that equals or exceeds the significant emissions rates set out in the definition of significant at Section 006. (4-5-00)

Justification: The emissions from this project will not cause an increase in emissions that equals or exceeds the significant mission rates set out in Section 006. Refer to Appendix A, Table A-4 for emission calculations. The criterion is satisfied.

- iii. Cause or significantly contribute to a violation of an ambient air quality standard, based upon the applicable air quality models, data bases, and other requirements of 40 CFR Part 51, Appendix W (Guideline on Air Quality Models). No demonstration under this subsection is required for those sources listed at Subsection 222.02. (4-5-00)

Justification: The project will not cause or significantly to a violation of an ambient air quality standard. Refer to Appendix A, Table A-5 for ambient impact calculations. The criterion is satisfied.

- b. Combination: The source is not part of a proposed new major facility or part of a proposed major modification. (4-5-00)

Justification: This project is not part of a proposed new major facility or part of a proposed major modification as defined in IDAPA 58.01.01.006. The criterion is satisfied.

FEDERAL REGULATIONS

40 CFR 61, SUBPART H – NATIONAL EMISSION STANDARDS FOR EMISSION OF RADIONUCLIDES OTHER THAN RADON FROM DEPARTMENT OF ENERGY FACILITIES.

40 CFR 61.93 Emission monitoring and test procedures. In order to determine whether a release point is subject to the emission measurement requirements of 40 CFR 61.93.b (continuous monitoring), it is necessary to evaluate the potential for radionuclide emissions for the release point. In evaluating the potential of a release point to discharge radionuclides into the air for purposes of continuous monitoring, the estimated radionuclide release rates shall be based on the discharge of the effluent stream that would result if all pollution control equipment did not exist, but the facilities operations were otherwise normal. Sources with unmitigated potential emissions determined to equal or exceed 0.1 mrem/yr are required to be continuously monitored.

Justification: As demonstrated in Appendix A, Table A-3, potential unabated EDE from this project was calculated to below the 0.1 mrem/yr continuous monitoring threshold. The requirement for continuous monitoring is not applicable to this project.

Section J: Toxic Air Pollutant Emission Information

Instructions: Upon identifying the presence of applicable toxic air pollutants for the project, the APAD Document Preparer shall identify the specific pollutants and document their emission rates. Refer to IDAPA 58.01.01.585 and 586 to complete this section. If no TAPs are expected to be present, state "None" or "N/A".

See Appendix A, Tables A-1 and A-2 for list of potential toxic air pollutants and emission calculations.

Appendix A. Project Emissions

Instructions: Include sample calculations and a summary of emissions results. (Modeling results must be attached for any modeling that has been conducted.) Reference all assumptions and documentation upon which the calculations are based, including relevant documents, letters, e-mails, written records of personnel communication, and all variables in calculations. Include the formula view (if available) or provide example equations for any electronic worksheets calculating emission values.

AIR POLLUTANT EMISSIONS CALCULATIONS AND ASSUMPTIONS

Refer to Tables A-1 through A-5 for emission calculations and comparison to emission standards.

Methods and Assumptions:

1. Waste constituent data was obtained from document entitled "Validated Data from Calendar Year 2003 Characterization Sampling of the Tank Contents of the TSF-26 PM-3A Tanks", provided by D. L. Eaton. The data provides measured concentrations in each of the PM-2A waste tanks (V-13 and V-14). The highest concentration found in any one sample was assumed to represent worst case concentration of the entire waste contents.
2. Data containing qualifier flags "U", "UJ", "R" is not used in emission calculations. Data for TCLP analysis was not used.
3. Assume a maximum of 10,400 gallons of waste in the tanks.
4. For comparison with short-term emission limits (e.g., lb/hr), it was assumed that the entire tank waste volume could be processed in 240 hrs (approximately 10-24 hour days).
5. All particulate matter (PM) is assumed to be PM less than 10 micrometers in aerodynamic diameter (PM-10).
6. For determining the physical state of a radionuclide at temperatures above 100 degrees Celsius, the boiling point of the radionuclide is considered. Specifically, when a material is heated to within 500 degrees Celsius of its boiling point, the material will be treated as a gas with 100% release. If the material is not heated to within 500 degrees of its boiling point, the physical state used for release fraction determination will be the actual physical state of the material at the operating temperature (e.g., liquid, particulate solid). It is assumed that no radionuclides will be heated to within 500 degrees Celsius of its boiling point; therefore if the radionuclide exists as a liquid or particulate solid, a release fraction of 1E-03 (0.001) is used to estimate potential emissions. A release fraction of 1 is assumed for gaseous or volatile radionuclides.
7. During treatment, metals present in the waste are assumed released using a release fraction of 0.001, equivalent to that used for radionuclide release rate calculations.
8. During treatment, volatile and semi-volatile organic compounds are assumed released using a release fraction of 1.
9. The TAP screening emission levels and acceptable ambient concentration limits associated with the most toxic or carcinogenic form were used for comparison with the waste constituents. For example, all chromium present in the waste is assumed to be present as hexavalent chromium (Cr VI).
10. A density of 1.6 g/mL was used in emission calculations to bound potential emissions.
11. In accordance with IDAPA 58.01.01.586, the following polyaromatic hydrocarbons (PAH) were considered together as one toxic air pollutant: benzo(a)anthracene, benzo(b)fluoranthene, chrysene, indenol(1,2,3,-cd)pyrene, and benzo(a)pyrene. These were compared to the IDAPA 58.01.01.586 levels for POC, equivalent to benzo(a)pyrene (e.g., 2.0E-06 lb/hr and 3.0E-04 ug/m³).
12. In accordance with IDAPA 58.01.01.586, the remaining PAH compounds (fluoranthene, pyrene, and benzo(g,h,i)perylene) were considered together as one toxic air pollutant and compared to the IDAPA 58.01.01.586 levels for PAH (e.g., 9.1E-05 lb/hr and 1.4E-02 ug/m³).
13. No credit for control equipment is assumed.

CAP-88 MODEL

Methods and Assumptions:

1. The effective dose equivalent was determined using CAP-88 to model a one (1) Ci release to the maximally exposed individual (MEI) at Frenchman's Cabin from TAN. Each isotope was modeled to determine the resulting curie emissions that would result in one nrem dose (Ci/nrem). This result was converted to a unit curie dose (mrem/Ci) which corresponds to the dose (mrem) which results from 1 curie emissions. The unit curie dose (mrem/Ci) is used as a factor to multiply the maximum potential emission rate (Ci/yr) to determine the potential EDE (mrem/yr). This method assumes the current MEI at Frenchman's Cabin will not move closer to TAN during the course of this activity. Unit curie dose factors are based on calendar year 2003 NESHAP report radionuclide screening spreadsheets provide by C. S. Staley on 12/18/03. Dose factors are in Ci/nrem and converted to mrem/Ci. The CAP-88 modeling factors are provided in Attachment 1.

SCREEN3 MODEL

Methods and Assumptions:

1. SCREEN3, version 96043, was used.
2. The point of compliance for criteria air pollutants and non-carcinogenic toxic air pollutants was determined to be the nearest public highway (Hwy 33), 864 m distant from TAN. The point of compliance for carcinogenic toxic air pollutants was determined to be the closest INEEL site boundary, 9400 m distant from TAN. The SCREEN3 output file is provided in Attachment 2. Emissions were modeled without consideration of building wake effects. Three (3) scenarios were evaluated to determine which scenario results in the highest ambient impacts at the point of compliance. The scenarios assume emissions will be vented 1) at ground level, 2) to a new exhaust point located external to building TAN-607, or 3) to the existing TAN-734 stack. The scenario assuming a ground-level exhaust point at TAN resulted in the highest potential ambient concentration impacts at the point of compliance. The scenario resulting in the next highest potential ambient concentration impacts at the point of compliance was Scenario 2 (proposed new exhaust point external to building TAN-607). The scenario that results in the lowest potential ambient concentration impacts at the point of compliance is Scenario 3 (TAN-734 stack). Since the ground level release modeling scenario proved to be the most conservative scenario evaluated, this modeling was used to estimate maximum potential ambient impacts from this project. The maximum 1-hour concentration for a 1 lb/hr release at the nearest receptor distance of 864 m was determined to be 107.2 ug/m^3 . The maximum 1-hour concentration for a 1 lb/hr release at the nearest receptor distance of 9400 m was determined to be 3.461 ug/m^3 . One hour modeled ambient concentrations are converted to applicable averaging times by applying persistence factors as listed in the State of Idaho Air Quality Modeling Guideline, Doc. ID AQ-011 (rev. 1 12/31/02) and IDAPA 58.01.01.210.03.a.1.: 0.4 (24-hour avg.), 0.13 (quarterly avg.), 0.08 (annual avg.-criteria), and 0.125 (annual avg. - carcinogenic TAP). The modeled result (ug/m^3 per lb/hr) multiplied by the persistence factor is considered the SCREEN3 Unit Release Concentration.

SCENARIO 1.

GROUND LEVEL RELEASE

Note: Assumed a hypothetical ground level release for activities taking place at the PM-2A tank site.

1. Source type: Point
2. Emission rate = 0.126 g/s (1 lb/hr)
3. Stack height = 0.0
4. Stack inside diameter = 0.0
5. Stack gas volumetric air flow = 0.0
6. Stack gas exit temperature = 293.15 deg. K
7. Ambient air temperature = 293.15 deg K (Default)
8. Receptor height = 0.0
9. Urban/Rural Option = Rural
10. Terrain = Flat
11. No building downwash. Various nearby building sizes were test run and resulted in a decrease in concentration at the receptor. Thus in this case, no building downwash is a conservative model parameter.
12. Nearest receptor = 864 m

SCENARIO 2.

STACK PARAMETERS USING PROPOSED STACK EXTERNAL TO TAN-607:

Note: Hypothetical stack parameters were provided by D. L. Eaton.

1. Source type: Point
2. Emission rate = 0.126 g/s (1 lb/hr)
3. Stack height = 6.096 m (20 ft)
4. Stack inside diameter = 0.1016 m (4 in.)
5. Stack gas volumetric air flow = 100 scfm (104.1667 acfm)
6. Stack gas exit temperature = 305 deg. K
7. Ambient air temperature = 293.15 deg K (Default)
8. Receptor height = 0.0
9. Urban/Rural Option = Rural
10. Terrain = Flat
11. No building downwash. Various nearby building sizes were test run and resulted in a decrease in concentration at the receptor. Thus in this case, no building downwash is a conservative model parameter.
12. Nearest receptor = 864 m

AIR PERMITTING APPLICABILITY DETERMINATION

SCENARIO 3.

STACK PARAMETERS USING TAN-734 STACK

Note: Actual stack parameters were taken from INEEL/EXT-2000-01610, "Application for a Title V Operating Permit for the Idaho National Engineering and Environmental Laboratory", March 2001.

1. Source type: Point
2. Emission rate = 0.126 g/s (1 lb/hr)
3. Stack height = 48.8 m (160 ft)
4. Stack inside diameter = 1.143 m (45 in.)
5. Stack gas volumetric air flow = 18,000 acfm
6. Stack gas exit temperature = 293.15 deg. K
7. Ambient air temperature = 293.15 deg K (Default)
8. Receptor height = 0.0
9. Urban/Rural Option = Rural
10. Terrain = Flat
11. No building downwash. TAN-734 stack is greater than Good Engineering Practice (GEP) stack height therefore wake effects due to building downwash is not considered.
12. Nearest receptor = 864 m

AIR PERMITTING APPLICABILITY DETERMINATION

Table A-1. Potential emissions of non-carcinogenic toxic air pollutants (TAPs) compared to IDAPA 58.01.01.585 screening emission levels.

Constituent	Maximum Waste Concentration ^a (mg/kg)	Waste Inventory ^b (lb/yr)	Maximum Hourly Emission Rate ^c (lb/hr)	Maximum Annual Emission Rate ^d (ton/yr)	Screening Emission Level ^e (lb/hr)	< Screening Emission Level ^f YES/NO	Potential Ambient Concentration ^h (ug/m3)	AAC Limit ⁱ (ug/m3)
Acetone	0.196	2.72E+02	1.13E-04	1.38E-05	1.19	YES	4.86E-03	89000
Aluminum	6460	8.97E+02	3.74E-03	4.48E-04	0.133	YES	1.60E-01	100
Barium	91	1.26E+01	5.26E-05	6.32E-06	0.033	YES	2.28E-03	25
Boron	4530	6.29E+02	2.62E-03	3.14E-04	0.667	YES	1.12E-01	500
Cobalt	6.55	9.09E-01	3.79E-06	4.55E-07	0.0033	YES	1.62E-04	2.5
Copper	68.9	9.57E+00	3.99E-05	4.78E-06	0.013	YES	1.71E-03	10
Cyanide	9.5	1.32E+00	5.50E-03	6.60E-04	0.333	YES	2.36E-01	250
o-Dichlorobenzene	0.138	1.92E-02	7.98E-05	9.58E-06	20	YES	3.42E-03	15000
(1,2-Dichlorobenzene)								
Iron	12700	1.76E+03	7.35E-03	8.82E-04	0.333	YES	3.15E-01	250
Magnesium	6600	9.16E+02	3.82E-03	4.58E-04	0.667	YES	1.64E-01	500
Manganese	4130	5.73E+02	2.39E-03	2.87E-04	0.067	YES	1.02E-01	50
Mercury	29.6	4.11E+00	1.71E-05	2.05E-06	0.001	YES	7.34E-04	0.5
2-Hexanone	0.374	5.19E-02	2.16E-04	2.60E-05	1.33	YES	9.28E-03	29500
(Methyl n-butyl ketone)								
Naphthalene	0.0995	1.38E-02	5.76E-05	6.91E-06	3.33	YES	2.47E-03	2500
Pentachlorophenol	4.65	6.46E-01	2.69E-03	3.23E-04	0.033	YES	1.15E-01	25
Silver	59.3	8.23E+00	3.43E-05	4.12E-06	0.001	YES	1.47E-03	5
Tributyl phosphate	20.7	2.87E+00	1.20E-02	1.44E-03	0.147	YES	5.14E-01	110
1,2,4-Trichlorobenzene	0.0833	1.16E-02	4.82E-05	5.78E-06	2.47	YES	2.07E-03	1850
Trichloroethylene ^g	0.775	1.08E-01	4.48E-04	5.38E-05	17.93	YES	1.92E-02	13450
Vanadium	31.6	4.39E+00	1.83E-05	2.19E-06	0.003	YES	7.84E-04	2.5
Xylene (o-, m-, p-isomers)	0.123	1.71E-02	7.12E-05	8.54E-06	29	YES	3.05E-03	0.5
Zinc	3360	4.67E+02	1.94E-03	2.33E-04	0.067	YES	8.34E-02	50
The following constituents are not listed as IDAPA toxic air pollutants.								
Bromomethane	0.562	7.80E-02	3.25E-04	3.90E-05	NA			
Benzoic acid	0.241	3.35E-02	1.39E-04	1.67E-05	NA			
Lead	280	3.89E+01	1.62E-01	1.94E-02	NA			
2-methylnaphthalene	0.326	4.53E-02	1.89E-04	2.26E-05	NA			
4-Bromophenyl phenyl ether	0.223	3.10E-02	1.29E-04	1.55E-05	NA			
Sodium	11600	1.61E+03	6.71E-03	8.05E-04	NA			
Potassium	6880	9.55E+02	3.98E-03	4.78E-04	NA			
			Total	2.17E-01	2.60E-02			

a. Maximum concentration taken from Validated Data from Calendar Year 2003 Characterization Sampling of the Tank Contents of the TSF-26 PM-2A Tanks, Tables 4 and 5 for metals, Tables 6 and miscellaneous parameters, Tables 8 and 9 for VOCs, Tables 10 and 11 for semi-VOCs, and Tables 12 and 13 for PCBs. Tables were compared and the highest concentration found in any one sample to represent worst case concentration of the entire waste contents.

b. The waste inventory is calculated as follows:

Waste Inventory (lb/yr) = [Maximum Concentration (ppm)] x (10400 gal/yr) x (3785 mL/gal) x (1 lb/453.6 g) x (1 mg/1E6 mg).

c. Maximum hourly emission rate is calculated as follows: Maximum Hourly Emission Rate (lb/hr) = [Waste Inventory (lb/yr)]/[240 hr/yr] x [Release Fraction (0.001 or 1)].

d. Maximum annual emission rate (ton/yr) is calculated as follows: Maximum Annual Emission Rate (ton/yr) = [Waste Inventory (lb)] x [Release Fraction (0.001 or 1)] x (1 ton/2000 lb).

e. Non-carcinogenic TAP screening emission level as listed in IDAPA 58.01.01.585.

f. Excel decision matrix - If the TAP emission rate is less than the IDAPA screening emission level then the value equals "Yes", otherwise "No".

g. TAP is also listed as a carcinogenic TAP (see Table A-2).

h. SCREEN3 maximum unit concentration was estimated by modeling ambient concentration 864 m distant from TAN, at Hwy 33.

The maximum 1-hour concentration for a 1 lb/hr release at the nearest receptor distance of 864 m is 107.2 ug/m³ per lb/hr.

One hour ambient concentrations are converted to various averaging times by applying persistence factors as listed in the State of Idaho Air Quality Modeling Guideline, Doc. ID AQ-011 (rev. 1 12 IDAPA 58.01.01.210.03 a.i. as follows: 0.4 (24-hr average) to determine the SCREEN maximum unit concentrations.

SCREEN3 Unit Release Concentration = 42.88 ug/m³ per lb/hr.

Potential Ambient Concentration (ug/m³) = [SCREEN3 Unit Release Concentration (ug/m³ per lb/hr)] x [Maximum Hourly Emission Rate (lb/hr)].

i. Acceptable ambient concentration for non-carcinogenic TAPs (AAC) as listed in IDAPA 58.01.01.585.

j. Excel decision matrix - If the potential ambient concentration is less than the IDAPA AAC then the value equals "Yes", otherwise "No".

AIR PERMITTING APPLICABILITY DETERMINATION

Table A-2. Potential emissions of carcinogenic toxic air pollutants (TAPs) compared to IDAPA 58.01.01.586 screening emission levels.

Substance	Maximum Waste Concentration ^a (mg/kg)	Waste Inventory ^b (lb/yr)	Maximum Hourly Emission Rate ^c (lb/hr)	Maximum Annual Emission Rate ^d (ton/yr)	Screening Emission Level ^e (lb/hr)	< Screening Emission Level ^f YES/NO	Potential Ambient Concentration ^h (ug/m3)	AACC Limit ⁱ (ug/m3)	< AACC Limit ^j YES/NO
Aroclor (PCB)	6.7	6.98E-01	2.91E-03	3.49E-04	6.80E-05	NO	3.45E-05	1.00E-02	YES
Arsenic	29.9	3.11E+00	1.30E-05	1.56E-06	1.50E-06	NO	1.54E-07	2.30E-04	YES
Beryllium	18.8	1.96E+00	8.16E-06	9.79E-07	2.80E-05	YES	9.67E-08	4.20E-03	YES
Cadmium	44.8	4.87E+00	1.94E-05	2.33E-06	3.70E-06	NO	2.30E-07	5.60E-04	YES
Chromium (VI)	1110	1.16E+02	4.82E-04	5.78E-05	5.60E-07	NO	5.71E-06	8.30E-05	YES
Nickel	144	1.50E+01	6.25E-05	7.50E-06	2.70E-05	NO	7.41E-07	4.20E-03	YES
Polycyclic Aromatic Hydrocarbons (PAH)	1.988	2.05E-01	8.54E-04	1.02E-04	9.10E-05	NO	1.01E-05	1.40E-02	YES
Polycyclic Organic Matter (POM)	1.988	2.07E-01	8.83E-04	1.04E-04	2.00E-06	NO	1.02E-05	3.00E-04	YES
Tetrachloroethylene	136	1.42E+01	5.90E-02	7.08E-03	1.30E-02	NO	8.99E-04	2.10E+00	YES
Trichloroethylene ^g	0.775	8.07E-02	3.36E-04	4.04E-05	5.10E-04	YES	3.99E-06	7.70E-02	YES
2,4,6 - Trichlorophenol	0.559	5.82E-02	2.43E-04	2.91E-05	1.20E-03	YES	2.87E-06	1.80E-01	YES
Total			6.48E-02	7.78E-03					

a. Maximum concentration taken from Validated Data from Calendar Year 2003 Characterization Sampling of the Tank Contents of the TSF-26 PM-2A Tanks, Tables 4 and 5 for metals, Tables 6 and 7 for miscellaneous parameters, Tables 8 and 9 for VOCs, Tables 10 and 11 for semi-VOCs, and Tables 12 and 13 for PCBs. Tables were compared and the highest concentration found in any one sample was assumed to represent worst case concentration of the entire waste contents.

b. The waste inventory is calculated as follows:

Waste Inventory (lb/yr) = [Maximum Concentration (ppm)] x (10400 gal/yr) x (3785 mL/1 gal) x (1.6 g/mL) x (1 lb/453.6 g) x (1 mg/1E6 mg).

c. Maximum hourly emission rate is calculated as follows: Maximum Hourly Emission Rate (lb/hr) = [Waste Inventory (lb/yr)]/[240 hr/yr] x [Release Fraction (0.001 or 1)].

d. Maximum annual emission rate (ton/yr) is calculated as follows: Maximum Annual Emission Rate (ton/yr) = [Waste Inventory (lb)] x [Release Fraction (0.001 or 1)] x (1 ton/2000 lb).

e. Carcinogenic TAP screening emission level as listed in IDAPA 58.01.01.586.

f. Excel decision matrix - If the TAP emission rate is less than the IDAPA screening emission level then the value equals "Yes", otherwise "No".

g. TAP is also listed as a non-carcinogenic TAP (see Table A-1).

h. SCREEN3 maximum unit concentration was estimated by modeling ambient concentration 9400 m distant from TAN, at the INEEL site boundary.

The maximum 1-hour concentration for a 1 lb/hr release at the nearest receptor distance of 9400 m is 3.461 ug/m3 per lb/hr.

One hour ambient concentrations are converted to various averaging times by applying persistence factors as listed in the State of Idaho Air Quality Modeling Guideline, Doc. ID AQ-011 (rev. 1 12/31/02) and IDAPA 58.01.01.210.03.a.i. as follows:

0.125 (carcinogenic TAPs annual average) to determine the SCREEN maximum unit concentrations.

$$\text{SCREEN3 Unit Release Concentration} = \frac{0.433 \text{ ug/m}^3 \text{ per lb/hr}}{0.433}$$

The potential ambient concentration for carcinogenic TAPs is calculated based on an annual average emission rate.

The annual average emission rate (lb/hr) is calculated as follows: Annual average emission rate (lb/hr) = [Waste Inventory (lb/yr)]/[8760 hr/yr] x [Release Fraction (0.001 or 1)].

Potential Ambient Concentration (ug/m³) = [SCREEN3 Unit Release Concentration (ug/m3 per lb/hr)] x [Annual Average Emission Rate (lb/hr)].

i. Acceptable ambient concentration for carcinogenic TAPs (AACC) as listed in IDAPA 58.01.01.586.

j. Excel decision matrix - If the potential ambient concentration is less than the IDAPA AACC then the value equals "Yes", otherwise "No".

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Table A-3. Potential radionuclide emissions and resulting effective dose equivalent.

Radionuclide	Maximum Radionuclide Activity ^a (pCi/g)	Radionuclide Inventory ^b (Ci/yr)	Uncontrolled Radionuclide Release ^c (Ci/yr)	Unit Curie Dose ^d (Ci/nrem)	Unit Curie Dose ^e (mrem/Ci)	Uncontrolled EDE ^f (mrem/yr)
Ag-108m ^g	3.70E+01	2.33E-03	2.33E-06	NA ^g	NA ^g	0.00E+00
Am-241	1.30E+02	8.19E-03	8.19E-06	7.87E-07	1.27E+00	1.04E-05
Am-243	2.89E-01	1.82E-05	1.82E-08	7.87E-07	1.27E+00	2.31E-08
C-14	1.39E+01	8.75E-04	8.75E-07	3.56E-03	2.81E-04	2.46E-10
Cm-243	1.09E+01	6.87E-04	6.87E-07	1.18E-06	8.45E-01	5.80E-07
Cm-244	1.09E+01	6.87E-04	6.87E-07	1.50E-06	6.65E-01	4.57E-07
Co-60	6.16E+03	3.88E-01	3.88E-04	6.37E-05	1.57E-02	6.09E-06
Cs-137	1.39E+06	8.75E+01	8.75E-02	6.27E-05	1.60E-02	1.40E-03
Fe-55	1.40E+02	8.82E-03	8.82E-06	2.92E-02	3.42E-05	3.02E-10
H-3	6.22E+03	3.92E-01	3.92E-01	1.97E-01	5.08E-06	1.99E-08
Ni-59	2.29E+03	1.44E-01	1.44E-04	3.39E-02	2.95E-05	4.25E-09
Ni-63	2.41E+05	1.52E+01	1.52E-02	3.13E-02	3.20E-05	4.86E-07
Np-237	1.07E-01	6.74E-06	6.74E-09	8.62E-07	1.16E+00	7.82E-09
Pu-238	6.94E+02	4.31E-02	4.31E-05	1.30E-06	7.88E-01	3.31E-05
Pu-239	4.92E+02	3.10E-02	3.10E-05	1.21E-06	8.28E-01	2.57E-05
Pu-240	4.92E+02	3.10E-02	3.10E-05	1.21E-06	8.27E-01	2.56E-05
Pu-241	6.20E+02	3.90E-02	3.90E-05	1.82E-05	5.49E-02	2.14E-06
Sr-90	1.16E+06	7.31E+01	7.31E-02	9.22E-05	1.08E-02	7.92E-04
Tc-99	1.56E+02	9.83E-03	9.83E-06	4.46E-04	2.24E-03	2.20E-08
U-233	3.04E+00	1.91E-04	1.91E-07	3.15E-06	3.18E-01	6.09E-08
U-234	1.01E+03	6.38E-02	6.38E-05	3.22E-06	3.11E-01	1.98E-05
U-235	3.38E+01	2.13E-03	2.13E-06	3.38E-06	2.96E-01	6.30E-07
U-236	6.52E+00	4.11E-04	4.11E-07	3.39E-06	2.95E-01	1.21E-07
U-238	1.21E+01	7.62E-04	7.62E-07	3.59E-06	2.78E-01	2.12E-07
					Total	2.32E-03

a. Maximum radionuclide activity taken from Validated Data from Calendar Year 2003 Characterization Sampling of the Tank Contents of the TSF-26 PM-2A Tanks. Tables 2 and 3. Tables were compared and the highest activity found in any one sample was assumed to represent worst case activity of the entire waste contents.

b. The radionuclide inventory is calculated as follows:

$$\text{Radionuclide Inventory (Ci)} = [\text{Maximum Radionuclide Activity (pCi/g)}] \times (3785 \text{ mL/l gal}) \times (1.6 \text{ g/mL}) \times (10400 \text{ gal/yr}) \times (1 \text{ Ci/1E12 pCi}).$$

c. The uncontrolled radionuclide release is determined using a release fraction of 0.001 for particulate radionuclides, or 1 for gaseous/volatile radionuclides (i.e., H-3) as follows: Uncontrolled Radionuclide Release (Ci) = [Radionuclide Inventory (Ci/yr)] x [Release Fraction (0.001 or 1)].

d. Unit curie dose conversions as provided for point releases for the calendar year 2003 NESHAP report (Staley 2003). The value represents the Ci release (each nuclide) that would result in 1 nanorem (10-6 mrem) dose to the MEI at Frenchman's cabin.

e. Dose (Ci/nrem) was converted to dose (mrem/Ci) using the following equation:

$$\text{Unit curie dose (mrem/Ci)} = [\text{Unit curie dose (1 nrem/Ci)}] \times (1000 \text{ mrem/1E09 nrem}).$$

Example conversion:

$$\text{Co-60} = (1 \text{ nrem/6.37E-05 Ci}) (1000 \text{ mrem/1E09 nrem}) = 1.57E-02 \text{ mrem/Ci}.$$

f. Uncontrolled EDE is calculated as follows:

$$\text{EDE (mrem/yr)} = [\text{Maximum Uncontrolled Radionuclide Release (Ci/yr)}] \times [\text{Unit Curie Dose (mrem/Ci)}].$$

g. Radionuclide is not modeled in CAP-88.

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Table A-4. Potential emissions of criteria air pollutants compared to IDAPA 58.01.01.006.93 significant emission levels.

Air Pollutant	Maximum Hourly Emission Rate ^a (lb/hr)	Maximum Annual Emission Rate ^b (ton/yr)	Significant Emission Level ^c (ton/yr)	< Significant Emission Level ^d YES/NO
PM ^e	2.81E-01	3.38E-02	25	YES
Ozone (as VOCs) ^f	7.99E-02	9.59E-03	40	YES
Lead (elemental)	1.62E-01	1.94E-02	0.6	YES
Beryllium	8.16E-06	9.79E-07	0.0004	YES
Mercury	1.71E-05	2.05E-06	0.1	YES
PM-10 ^g	2.81E-01	3.38E-02	15	YES
Radionuclides		2.32E-03 mrem	0.1 mrem	YES

a. Maximum hourly emission rate(s) taken from Tables A-1, A-2, and A-3.

b. Maximum annual emission rate(s) taken from Tables A-1, A-2, and A-3.

c. Significant emission level as listed in IDAPA 58.01.01.006.93.

d. Excel decision matrix - if the maximum annual emission rate is less than the significant emission level then the value equals "Yes", otherwise "No".

e. Total TAP constituents released are assumed to be released as particulate matter (PM).

f. Emissions of volatile and semi-volatile organic compounds as determined from analytical data are summed to determine total VOC emission rate.

g. All particulate matter (PM) is assumed to PM with aerodynamic diameter less than 10 um (PM-10).

Table A-5. Potential ambient concentrations compared to IDAPA 58.01.01.577 ambient air quality standards.

Pollutant (Averaging Time)	Average Emission Rate ^a (lb/hr)	SCREEN3 Unit Release Concentration ^b (ug/m ³ per lb/hr)	Source Contribution ^c (ug/m ³)	INEEL Site Background Concentration ^d (ug/m ³)	Background + Source Contribution (ug/m ³)	Ambient Air Quality Standard ^e (ug/m ³)
PM-10 (Annual)	7.71E-03	8.58	6.61E-02	32.7	32.8	50
PM-10 (24-Hour)	2.81E-01	42.88	1.21E+01	86	98.1	150
Lead (Quarterly)	1.62E-01	13.94	2.26E+00	0.15	2.4	1.5

a. Annual average emission rate (lb/hr) is averaged over one year using results from Table A-3, as follows:

$$\text{Average Emission Rate (lb/hr)} = [\text{Maximum Annual Emission Rate (ton/yr)}] \times (1 \text{ yr}/8760 \text{ hrs}) \times [2000 \text{ lb}/1 \text{ ton}]$$

Short-term average emission rate (24-hr and quarterly) is assumed equivalent to the maximum hourly emission rate from Table A-4.

b. SCREEN3 maximum unit concentration was estimated by modeling ambient concentration 864 m distant from TAN, at Hwy 33.

The maximum 1-hour concentration for a 1 lb/hr release at the nearest receptor distance of 864 m:

One hour ambient concentrations are converted to various averaging times by applying persistence factors as listed in the State of Idaho Air Quality Modeling Guideline, Doc. ID AQ-011 (rev. 1 12/31/02) and IDAPA 58.01.01.210.03.a.i. as follows: 0.4 (24-hour avg.), 0.13 (quarterly avg.) and 0.08 (annual avg.) to determine the SCREEN maximum unit concentrations.

c. The source contribution is calculated as follows:

$$\text{Source Contribution (ug/m}^3\text{)} = [\text{Average Emission Rate (lb/hr)}] \times [\text{SCREEN3 Unit Release Concentration (ug/m}^3\text{ per lb/hr)}]$$

d. Ambient background concentrations taken from correspondence from Darrin Mehr, Associate Air Quality Engineer, Idaho Department of Environmental Quality, November 8,

2001. The highest background concentration is used in this analysis.

e. Ambient air quality standard as listed in IDAPA 58.01.01.577.

107.20 ug/m³ per lb/hr.

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AIR PERMITTING APPLICABILITY DETERMINATION

Appendix B. APAD Technical Reviewer Quality Checklist

Instructions: This checklist is provided to assist in the Quality Review of the APAD form. For each question enter the review date in the applicable box.

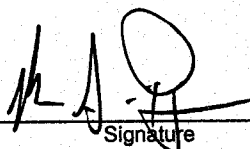
Quality Review Questions	Yes	No	N/A	Date
1. Have sections C through J been completed?	/			
2. Does Section D provide an adequate description of the project, and is it substantiated by the information in the draft or final EC, Appendix A, and/or the project information file?	/			
3. Have the applicable boxes in Section E been marked appropriately based on the scope of the project presented in the draft or final EC, Appendix A, and/or the project information file?	/			
3a. Have applicable requirements been listed for impacts checked in Section E?	/			
4. Has a detailed task/responsibility been prescribed for Facility/Project personnel in Section G for each requirement presented in Section F?	/			
4a. Does each task provide sufficient detail to direct facility/project personnel in maintaining, demonstrating, and documenting compliance?	/			
5. Have all the applicable boxes for reports been checked in Section H based on the presence/absence of potential air pollutant emissions or 40 CFR 68 regulated chemicals identified in Section D, Appendix A, the draft or final EC, and/or the project information file?	/			
5a. Has the Annual Toxics Report been accurately marked if toxic air pollutants are present?			/	
5b. Has the NESHAPs Annual Report been accurately marked if radiological emissions are present?	/			
5c. Has the AEI been accurately marked if this is a new source, an existing source, or an inactivation of an existing source?			/	
6. Is the justification in Section I accurate and consistent with EA Policy, and substantiated by the information in the APAD Appendix A?	/			
6a. If the APAD indicates this is a pre-existing source where no increase in emissions are expected or no construction or modification impacting existing source parameters are expected, has it been adequately documented?			/	
7. Has Section J identified applicable Toxic Air Pollutants likely to be emitted based on the scope of work described by Section D?	/			
8. Has sufficient information been provided by the facility/project and included in Appendix A and/or the project information file to make an accurate permitting determination?	/			
8a. Are the emission calculations accurate, reasonable, and defensible?	/			
8b. Have all equations been clearly shown including all variables and sources of variables, and have adequate assumptions been provided?	/			
8c. Have appropriate modeling results been included or referenced?	/			
8d. If modeled as a ground release, has emission source applicability for ground release modeling been verified?			/	
8e. If applicable, has a quality statement been signed and submitted by the modeler confirming that modeling was performed in accordance with the INEEL Air Modeling Protocol INEEL/INT-98-00236?			/	
9. If questions 1 through 8 have been marked "Yes" or "N/A" has a consistency check been completed by the EA Policy and Permitting Manager or Designee?	/			

Reviewer Comments:

Instructions: Insert reviewer comments if necessary.

Independent Technical Review Performed By:

M. A. Pinzel
Print/Type Name


Signature

4/21/04
Date

AIR PERMITTING APPLICABILITY DETERMINATION

Appendix C. Project/Facility Manager Requirements Quality Checklists

Instructions: These checklists are provided to assist in the quality review of the APAD requirements. For each numbered question enter the review date in the applicable box. The Project Manager and Facility Manager are required to complete their respective checklists prior to issuance of a complete APAD.

Project Manager

Requirements and Quality Review Questions	Yes	No	N/A	Date
1. Is the information in this APAD accurate and complete to the best of your knowledge?	✓			
2. Does the information in Section D and the APAD Information File provide an accurate description of the project and its anticipated scope?	✓			
3. Can the project satisfy all the requirements specified in Section G, and provide all the specified information?	✓			
4. Do you acknowledge the requirement to provide notice of project status within the time period specified in the APAD in order to prevent cancellation of the APAD authorization?	✓			
5. Do you acknowledge the need to request an APAD revision from EA should the project scope, potential emissions, and/or actual emissions change from what was previously presented in Section D, Appendix A, and/or the APAD Information File?	✓			

Who is responsible for providing notice to EA for the annual project status update and the one-time project construction, operation, completion, and cancellation notices?

Project Manager or Designee

Who is responsible for providing written notice to EA of any changes to the scope of the project as currently documented in Section D and the APAD information file?

Project Manager or Designee

In which on-site record storage facility will a copy of this APAD be maintained?

EDMS or Project File

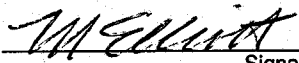
Who is the current records coordinator for the on-site record storage facility?

Myron Curtis

Project Manager:

Signature indicates that the reviewer has completed the checklist, verifies that the information is true, accurate, and complete, and accepts responsibility for ensuring that the final signed copy is sent to the designated records storage facility.

M.D. Elliot
Print/Type Name


Signature

4/21/04
Date

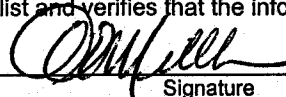
Facility Manager

Requirements and Quality Review Questions	Yes	No	N/A	Date
1. Do you recognize and acknowledge that the tasks presented in Section G are the responsibility of the performing organization/facility and are required in order to demonstrate compliance?	✓			
2. Can the facility satisfy all the requirements specified in Section G, and provide all the specified information? Requirements can be satisfied by several means (e.g. equipment operating logs, procedures, assessments, engineering design files, monthly or annual reports).	✓			
3. Do you concur with the records storage location and coordinator designated above?	✓			

Facility Manager:

Signature indicates that the reviewer has completed the checklist and verifies that the information is true, accurate, and complete.

A.E. Millhouse
Print/Type Name


Signature

4/21/04
Date